

Translation

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

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| Applicant's or agent's file reference VALS 939 B PCT | FOR FURTHER ACTION | See Form PCT/IPEA/416 |
| International application No. PCT/FR2004/002005 | International filing date (day/month/year) 27.07.2004 | Priority date (day/month/year) 04.08.2003 |
| International Patent Classification (IPC) or national classification and IPC B05B1/34 | | |
| Applicant VALOIS SAS | | |

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| 1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36. |
| 2. This REPORT consists of a total of <u>7</u> sheets, including this cover sheet. |
| 3. This report is also accompanied by ANNEXES, comprising: a. <input checked="" type="checkbox"/> (sent to the applicant and to the International Bureau) a total of <u>2</u> sheets, as follows: <input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions). <input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box. b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions). |
| 4. This report contains indications relating to the following items: <input checked="" type="checkbox"/> Box No. I Basis of the report <input type="checkbox"/> Box No. II Priority <input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability <input type="checkbox"/> Box No. IV Lack of unity of invention <input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement <input type="checkbox"/> Box No. VI Certain documents cited <input checked="" type="checkbox"/> Box No. VII Certain defects in the international application <input type="checkbox"/> Box No. VIII Certain observations on the international application |

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| Date of submission of the demand | Date of completion of this report |
| Name and mailing address of the IPEA/EP | Authorized officer |
| Facsimile No. | Telephone No. |

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

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Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
 - ☐ This report is based on translations from the original language into the following language _____ which is the language of a translation furnished for the purposes of:
 - ☐ international search (Rule 12.3 and 23.1(b))
 - ☐ publication of the international application (Rule 12.4)
 - ☐ international preliminary examination (Rule 55.2 and/or 55.3)
2. With regard to the elements of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):
 - ☐ the international application as originally filed/furnished
 - ☒ the description:
 - pages 1-7 _____ as originally filed/furnished
 - pages* _____ received by this Authority on _____
 - pages* _____ received by this Authority on _____
 - ☒ the claims:
 - nos. _____ as originally filed/furnished
 - nos.* _____ as amended (together with any statement) under Article 19
 - nos.* 1-9 _____ received by this Authority on 06.06.2005 with letter of 03.06.2005
 - nos.* _____ received by this Authority on _____
 - ☒ the drawings:
 - sheets 1/2, 2/2 _____ as originally filed/furnished
 - sheets* _____ received by this Authority on _____
 - sheets* _____ received by this Authority on _____
 - ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.
3. ☐ The amendments have resulted in the cancellation of:
 - ☐ the description, pages _____
 - ☐ the claims, nos. _____
 - ☐ the drawings, sheets/figs _____
 - ☐ the sequence listing (*specify*): _____
 - ☐ any table(s) related to sequence listing (*specify*): _____
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
 - ☐ the description, pages _____
 - ☐ the claims, nos. _____
 - ☐ the drawings, sheets/figs _____
 - ☐ the sequence listing (*specify*): _____
 - ☐ any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

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| Box No. V | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement | | |
|--|---|-------------------------|-----|
| 1. Statement | | | |
| Novelty (N) | Claims | <u>2, 3, 5, 7, 8, 9</u> | YES |
| | Claims | <u>1, 4, 6</u> | NO |
| Inventive step (IS) | Claims | <u>5, 8, 9</u> | YES |
| | Claims | <u>2, 3, 7</u> | NO |
| Industrial applicability (IA) | Claims | <u>1-9</u> | YES |
| | Claims | <u></u> | NO |
| 2. Citations and explanations (Rule 70.7) | | | |
| Claim 1 | | | |
| <p>1. In spite of the clarifications submitted by the applicant in the letter dated 3 June 2005 and received 6 June 2005, claim 1 does not fulfil the requirement of novelty defined in PCT Article 33(2), for the following reasons:</p> <p>Document FR-A-2 774 367 (D1), which is considered to be the closest prior art, discloses (see page 2, line 18 to page 3, line 29; page 9, line 13 to page 10, line 30 and figures 5 to 7):</p> <p>a spray head for a fluid, comprising a discharge channel provided with a spray port (35) and a spray profile that is formed in the bottom wall of said discharge channel and comprises non-radial spray channels (26) in communication with a central spray chamber (25) directly upstream from said port (13), wherein the central axis of said port (35) is offset by less than 0.12 mm, and preferably less than 0.08 mm, relative to the central axis of said</p> | | | |

Box No. V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

chamber (25).

Port 35 (the dispensing hole) is "perfectly centred" relative to swirl chamber 25. This corresponds to an offset of 0 mm between axes X and Y. An offset of 0 mm is less than 0.12 mm and 0.08 mm.

Claims 2 and 3

2. The dimensions specified in claims 2 and 3 are well known in the prior art. Document FR-A-2 446 311 (D2) describes a dispensing head that has a port and a swirl chamber of which the diameters are the same as those indicated in claims 2 and 3. Other documents also mention the same dimensions for ports and swirl chambers (see, for example, US-A-4 036 439, EP-A-0 412 524, US-A-5 711 488, etc.).

It follows that the spray head as per claims 2 and 3 is not considered to involve an inventive step.

Claims 4 and 6

3. The clarification provided in the letter of 3 June 2005 according to which the claimed spray heads are "unitary" (produced in a single piece) is not clearly supported by claim 4. The expression "... produced using the same mould cavity ..." can also refer to a mould cavity that has two recesses for producing two separate parts. As a result, the

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prior art in document D1 remains highly pertinent.

Since document D1 envisages either a dispensing device comprising the spray head described therein or the series-production of said same spray heads by means of moulding, all of the spray heads as per claim 4 and the dispensing device as per claim 6 do not, in so far as they are dependent on claim 1, fulfil the requirement of novelty in PCT Article 33(2) for the same reasons as set out in point 1 above. In so far as claims 4 and 6 are dependent on claim 2 and/or claim 3, they do not fulfil the requirement of inventive step defined in PCT Article 33(3).

Claim 7

4. Document US-A-5 378 422 (D3) discloses (see page 4, line 62 to column 5, line 68 and figure 4) a production machine for spray heads, which machine comprises at least one mould provided with at least one head-moulding cavity, and a pin (28) for each moulding cavity, wherein the front surface of said pin has a profile that matches the spray profile of said head and consists of projections that define the non-radial channels and the spray chamber. Said pin further includes a punch for forming the port.

It would be obvious for a person skilled in the art, aware of the spray head in D1 and the machine in D3, to adapt the machine as per D3 so that it

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can be used to produce the heads as per D1. It follows that the production machine in claim 7 does not involve an inventive step and, as a result, claim 7 does not fulfil the requirement of inventive step defined in PCT Article 33(3).

Claims 5, 8 and 9

5. The subject matter in claims 5, 8 and 9 is not disclosed or suggested by the documents cited in the search report or the present report.

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Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

6. Contrary to the requirements of PCT Rule 5.1(a)(ii), the description does not indicate the relevant prior art disclosed in documents D1, D2 and D3, nor does it cite said documents.